MEASURING TEMPERATURE IN STATIONARY COMPONENTS OF ELECTRICAL MACHINES USING FIBER OPTICS

ABSTRACT OF THE DISCLOSURE

[0031] A sensor measures temperature in stationary components of electrical machines using fiber optics. An optical fiber is embedded in a non-metallic ribbon. Notches are cut in the ribbon to effect bends that accommodate a shape of a stationary component. The ribbon and optical fiber are attached to the stationary component. A series of laser pulses can be injected from at least one end of the optical fiber, and the stationary component temperature can be monitored by interrogation of reflections from the series of laser pulses.